AN APPROACH TO MINIMIZE WORST-CASE QUEUEING DELAY FOR A SWITCHING COMMUNICATION SYSTEM WITH TRANSMISSION CONSTRAINTS

ABSTRACT OF THE DISCLOSURE

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An approach for minimizing queueing delay of packets is disclosed. M number of queues are configured to store packets. A memory stores a search order table that has table entries corresponding to the M queues. Specifically, the table entries store values that correspond to relative positions of the M queues and that are selected based upon a

10   transmission constraint of the communication system. A scheduler is coupled to the memory and is configured to schedule transmission of the packets stored in the M queues based upon the search order table. According to one embodiment of the present invention, this queueing mechanism is applied in a satellite communication system with transmission constraints to the downlink cells.